

IN THE DRAWINGS:

FIGS. 1-8, 9A, 9B, 10-17, 18A, 18B, 19A-19C, 20-22, 23A, 23B, 24, 25A, 25B, 26, 27, 28A, 28B, 29, 30A, 30B, 31A, 31B and 32 have been corrected as shown in the Replacement Sheets in the attached Appendix.

REMARKS

This Amendment is submitted in response to the Office Action dated March 14, 2006 and the Notice of Non-Compliance dated September 13, 2006. In the Office Action, the Patent Office objected to the drawings under 37 CFR §1.84(i) and 37 CFR §1.84(p) as being informal. Further, the Patent Office provisionally rejected Claims 1-87 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-110 of co-pending U.S. Patent Application No. 10/447,099; Claims 1-114 of co-pending U.S. Patent Application No. 10/449,292; Claims 1-139 of co-pending U.S. Patent Application No. 10/449,312; Claims 1-82 of co-pending U.S. Patent Application No. 10/760,604; and Claims 1-51 of co-pending U.S. Patent Application No. 11/257,330. Still further, the Patent Office rejected Claims 1-22 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Moreover, the Patent Office rejected Claims 1-6, 8-13, 21-24, 44-51, 58-66 and 68-87 under 35 U.S.C. §102(b) as being anticipated by *Bergersen* (U.S. Patent No. 5,645,420); rejected Claims 14-17, 19 and 20 under 35 U.S.C. §102(b) as being anticipated by *Andrews* (U.S. Patent No. 4,591,341). Furthermore, the Patent Office rejected Claims 6, 42 and 66 under 35 U.S.C. §103(a) as being unpatentable over *Bergersen* in view of *Watson et al.* (U.S. Patent No. 5,328,362); rejected

Claims 7, 18, 40 and 67 under 35 U.S.C. §103(a) as being unpatentable over *Bergersen* in view of *Andrews*; and rejected Claims 21-39, 41-43 and 52-57 under 35 U.S.C. §103(a) as being unpatentable over *Bergersen*.

In response to the objection of the drawings under 37 CFR §1.84(i) and 37 CFR §1.84(p) as being informal, Applicant submits herewith Replacement Sheets of FIGS. 1-32. Applicant submits herewith replacement drawings. Applicant submits that the replacement drawings overcome the objection of the Patent Office. Approval of the drawings is requested.

With respect to the provisional rejection of Claims 1-87 on the ground of obviousness-type double patenting, Applicant submits that Claims 1-87 distinctly define the present invention in view of the co-pending applications to *Bergersen*. The Patent Office alleges that “[m]erely rearranging the order of claimed elements and using different wording to refer to the same subject matter would have been obvious to the ordinary skilled artisan.” Applicant asserts that the subject matter of the pending claims of U.S. Serial Nos. 10/447,099; 10/449,292; 10/449,312; 10/760,604; and 11/257,330 are distinct from the subject matter of the pending claims of the present application. As an example of the distinctiveness, Claim 1 of U.S. Serial No. 10/760,604 requires:

“the base has an interior surface which substantially surrounds a surface of at least one of the upper teeth and at least one of the lower teeth wherein the first end has a rear portion which is made from a first material

and the second end has a front portion which is made from a second material wherein the first material is stiffer than the second material wherein the second material"

Therefore, Applicant asserts that the provisional rejection of Claims 1-87 do not present obviousness-type double patenting issues with the pending claims of U.S. Serial Nos. 10/447,099; 10/449,292; 10/449,312; 10/760,604; and 11/257,330.

With respect to the rejection of Claims 1-22 under 35 U.S.C. §112, second paragraph, Applicant amended Claims 1-4, 7, 8, 11, 14, 18, 20 and 21. Applicant submits that the amendments to Claims 1-4, 7, 8, 11, 14, 18, 20 and 21 overcome the rejection by the Patent Office. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 1-6, 8-13, 21-34, 44-51, 58-66 and 68-87 under 35 U.S.C. §102(b) as being anticipated by *Bergersen*. More specifically, the Patent Office alleges that:

Bergersen '420 discloses a dental appliance having a general U-shaped base (Figure 2), flat occlusal surface 50 (note Fig. 5), first wall 26, second wall 28, slot 22 whose width increases from the front (Figure 3) to the rear (Figure 5). In regard to Claim 4, note lingual tabs 34. In regard to Claim 5, note column 10, line 64. In regard to Claim 9, note Fig. 15. In regard to Claim 21, note column 4, lines 8-9, which indicate that the device is made in various sizes, whether or not two different sized appliances are worn consecutively or not by a particular user is a matter of intended use and fails to impose any objectively ascertainable structural distinctions between the currently claimed set and that disclosed by *Bergersen* '420.

Independent Claim 1, as amended, requires that the slot

extends along the length of the base from the first end of the base to the second end of the base. Further, Claim 1 requires that the width of the slot increases from a first portion of the slot to a second portion of the slot wherein the first portion of the slot is shaped to contact a front of the mouth wherein the second portion of the slot is shaped to extend rearward in the mouth. Still further, Claim 1 requires that the second portion of the slot is shaped to move the canine type of teeth when the base is worn by the user. Moreover, Claim 1 requires that the second portion of the slot is shaped to correct the malocclusion of the canine type teeth.

Independent Claim 8, as amended, requires wedges formed within the occlusal surface wherein each of the wedges extend outward with respect to the occlusal surface to form an apex which is shaped to extend toward a canine tooth and to contact the canine tooth. Further, Claim 8 requires that the wedges are positioned on the base to move the canine tooth wherein the wedges are shaped to prevent malocclusion within the mouth when the base is worn by the user.

Independent Claim 21, as amended, defines dental appliances adapted to be worn consecutively by a user to treat a malocclusion. Claim 21 requires that the second device is sized larger than the first device. Further, Claim 21 requires that the second device is shaped to move the teeth when the second device is worn by the user

Still further, Claim 21 requires that the second devices is shaped to correct the malocclusion of the teeth of the user.

Independent Claim 27, as amended, requires that the first device is sized to treat a first type of dentition and that the second device is sized to treat a second type of dentition wherein the first type of dentition and the second type of dentition are different and further wherein at least one tooth of the second type of dentition is a permanent tooth. Further, Claim 27 requires that the first device and the second device are shaped to correct the malocclusion.

Independent Claim 44, as amended, requires that the socket is sized based on anatomical standards for teeth. Further, Claim 44 requires that at least one socket is shaped to receive canine type teeth regardless of anatomical variations of the canine type teeth of the user.

Independent Claim 58, as amended, requires the first area is shaped to receive the canine teeth regardless of anatomical variations of the canine type teeth of the user. Further, Claim 58 requires an incisal edge within the first area of the occlusal surface wherein the incisal edge inclines outward with respect to the occlusal surface and is sized to contact the canine tooth. Still further, Claim 58 requires that the incisal edge is shaped to move the canine tooth. Moreover, Claim 58 requires that the incisal edge is shaped to prevent a malocclusion of the teeth of

the user.

Independent Claim 63, as amended, requires that the slot extends along the length of the base from the first end of the base to the second end of the base. Further, Claim 63 requires that the slot has a first portion, a second portion, a third portion and a fourth portion wherein the width continuously increases from the first portion to the fourth portion. Still further, Claim 63 requires that the first portion is sized to receive an incisor type of tooth wherein the fourth portion is sized to receive a molar type of tooth of the user. Moreover, Claim 63 requires that the second portion and the third portion are shaped to contact teeth located between the incisor type of tooth and the molar type tooth wherein the slot corrects a malocclusion of the teeth.

Independent Claim 68, as amended, requires that the first socket is sized to receive a canine type tooth wherein the first socket separates the canine type tooth from teeth which are not canine type of teeth. Further, Claim 68 requires that the first socket moves the canine type tooth when the base is worn by the user.

Independent Claim 74, as amended, requires that the socket is shaped to move the canine type tooth from a first position to a second position wherein the second position is closer to a front of the mouth of the user than the first position when the base is worn by the user. Further, Claim 74 requires a liner in one of the

sockets wherein the liner prevents movement of the base away from the teeth when the base is worn in the mouth of the user.

Independent Claim 79, as amended, requires that the rib is positioned to contact an interproximal area of at least one tooth of the user when the base is worn by the user wherein the interproximal area is located between a first tooth and a second tooth. Further, Claim 79 requires that the rib guides one or more teeth of the user toward a position correcting a malocclusion of the teeth of the user when the base is worn by the user.

Independent Claim 85, as amended, requires that the base is preformed and designed from a digital model by a computer. Further, Claim 85 requires that the base is sized to correspond to the digital model wherein the digital model corresponds to the teeth of the user. Still further, Claim 85 requires that at least one of the sockets is sized to receive a canine type tooth and to move the canine type tooth with respect to the teeth when the base is worn by the user.

Bergersen merely discloses superior and inferior tooth receiving troughs 22A, 24A which have a plurality of tooth sockets 22Aa, 22Ab, 22Ac, 22Ad. In addition, *Bergersen* merely discloses an upper lingual flange 26 having a plurality of slight recesses 40a, 40b, 40c, 40d, 40e which extend 0.1 to 2 millimeters lingually in the incisor area of the appliance.

Nowhere does *Bergersen* disclose that the slot extends along

the length of the base from the first end of the base to the second end of the base as required by Claim 1. Further, nowhere does *Bergersen* disclose that the width of the slot increases from a first portion of the slot to a second portion of the slot wherein the first portion of the slot is shaped to contact a front of the mouth wherein the second portion of the slot is shaped to extend rearward in the mouth as required by Claim 1. Still further, nowhere does *Bergersen* disclose that the second portion of the slot is shaped to move the canine type of teeth when the base is worn by the user as required by Claim 1. Moreover, nowhere does *Bergersen* disclose that the second portion of the slot is shaped to correct the malocclusion of the canine type teeth as required by Claim 1.

Moreover, nowhere does *Bergersen* disclose wedges formed within the occlusal surface as required by Claim 8. Furthermore, nowhere does *Bergersen* disclose that each of the wedges extend outward with respect to the occlusal surface to form an apex which is shaped to extend toward a canine tooth and to contact the canine tooth as required by Claim 8. In addition, nowhere does *Bergersen* disclose that the wedges are positioned on the base to move the canine tooth wherein the wedges are shaped to prevent malocclusion within the mouth when the base is worn by the user as required by Claim 8.

Nowhere does *Bergersen* disclose that dental appliances adapted to be worn consecutively by a user to treat a malocclusion as required by Claim 21. Further, nowhere does *Bergersen* disclose

that the second device is sized larger than the first device as required by Claim 21. Still further, nowhere does *Bergersen* disclose that the second device is shaped to move the teeth when the second device is worn by the user as required by Claim 21. Moreover, nowhere does *Bergersen* disclose that the second devices is shaped to correct the malocclusion of the teeth of the user as required by Claim 21.

Moreover, nowhere does *Bergersen* disclose that the first device is sized to treat a first type of dentition and that the second device is sized to treat a second type of dentition wherein the first type of dentition and the second type of dentition are different and further wherein at least one tooth of the second type of dentition is a permanent tooth as required by Claim 27. Furthermore, nowhere does *Bergersen* disclose that the first device and the second device are shaped to correct the malocclusion as required by Claim 27.

Nowhere does *Bergersen* disclose that the socket is sized based on anatomical standards for teeth as required by Claim 44. Further, nowhere does *Bergersen* disclose that at least one socket is shaped to receive canine type teeth regardless of anatomical variations of the canine type teeth of the user as required by Claim 44.

Further, nowhere does *Bergersen* disclose that the first area is shaped to receive the canine teeth regardless of anatomical

variations of the canine type teeth of the user as required by Claim 58. Still further, nowhere does *Bergersen* disclose an incisal edge within the first area of the occlusal surface wherein the incisal edge inclines outward with respect to the occlusal surface and is sized to contact the canine tooth as required by Claim 58. Still further, nowhere does *Bergersen* disclose that the incisal edge is shaped to move the canine tooth as required by Claim 58. Moreover, nowhere does *Bergersen* disclose that the incisal edge is shaped to prevent a malocclusion of the teeth of the user as required by Claim 58.

Nowhere does *Bergersen* disclose that the slot extends along the length of the base from the first end of the base to the second end of the base as required by Claim 63. Further, nowhere does *Bergersen* disclose that the slot has a first portion, a second portion, a third portion and a fourth portion wherein the width continuously increases from the first portion to the fourth portion as required by Claim 63. Still further, nowhere does *Bergersen* disclose that the first portion is sized to receive an incisor type of tooth wherein the fourth portion is sized to receive a molar type of tooth of the user as required by Claim 63. Moreover, nowhere does *Bergersen* disclose that the second portion and the third portion are shaped to contact teeth located between the incisor type of tooth and the molar type tooth wherein the slot corrects a malocclusion of the teeth as required by Claim 63.

Furthermore, nowhere does *Bergersen* disclose that the first socket is sized to receive a canine type tooth wherein the first socket separates the canine type tooth from teeth which are not canine type of teeth as required by Claim 68. In addition, nowhere does *Bergersen* disclose that the first socket moves the canine type tooth when the base is worn by the user as required by Claim 68.

Further, nowhere does *Bergersen* disclose the socket is shaped to move the canine type tooth from a first position to a second position wherein the second position is closer to a front of the mouth of the user than the first position when the base is worn by the user as required by Claim 74. Further, nowhere does *Bergersen* disclose a liner in one of the sockets wherein the liner prevents movement of the base away from the teeth when the base is worn in the mouth of the user as required by Claim 74.

Furthermore, nowhere does *Bergersen* disclose that the rib is positioned to contact an interproximal area of at least one tooth of the user when the base is worn by the user wherein the interproximal area is located between a first tooth and a second tooth as required by Claim 79. In addition, nowhere does *Bergersen* disclose that the rib guides one or more teeth of the user toward a position correcting a malocclusion of the teeth of the user when the base is worn by the user as required by Claim 79.

Further, nowhere does *Bergersen* disclose that the base is

preformed and designed from a digital model by a computer as required by Claim 85. Further, nowhere does *Bergersen* disclose that the base is sized to correspond to the digital model wherein the digital model corresponds to the teeth of the user as required by Claim 85. Still further, nowhere does *Bergersen* disclose that at least one of the sockets is sized to receive a canine type tooth and to move the canine type tooth with respect to the teeth when the base is worn by the user as required by Claim 85. Therefore, *Bergersen* does not disclose the elements required by Claims 1, 8, 21, 27, 44, 58, 63, 68, 74, 79 and 85, as amended.

Under 35 U.S.C. §102(b), anticipation requires that a single reference discloses each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d. 1241, 1245 (Fed. Cir. 1986). Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial", and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

Since *Bergersen* fails to disclose the elements specifically defined in amended independent Claims 1, 8, 21, 27, 44, 58, 63, 68, 74, 79 and 85, Applicant asserts that the rejection of Claims 1-6, 8-13, 21-34, 44-51, 58-66 and 68-87 under 35 U.S.C. §102(b) has been overcome and should be withdrawn. Notice to that effect is

requested.

In the Office Action, the Patent Office rejected Claims 14-17, 19 and 20 under 35 U.S.C. §102(b) as being anticipated by *Andrews*. More specifically, the Patent Office alleges that:

Note mouthpiece 10 with suction cups 14, 16, 20, 24, 26 and 30. In regard to Claim 15, the suction cups are removable with proper tools.

Independent Claim 14, as amended, requires at least one of sockets has peripheral walls defining an interior wherein the interior is shaped to receive a first tooth. Further, Claim 14 requires that the peripheral walls separate a first tooth from a second tooth wherein the sockets are shaped to treat a malocclusion. Still further, Claim 14 requires that the suction cup is molded into the base.

Andrews merely teaches a single opening in an orthodontic positioner. Strips having suction devices are attached to interior walls of the positioner.

Nowhere does *Andrews* disclose that at least one of the sockets has peripheral walls defining an interior wherein the interior is shaped to receive a first tooth as required by Claim 14. Further, nowhere does *Andrews* disclose that the peripheral walls separate a first tooth from a second tooth wherein the sockets are shaped to treat a malocclusion as required by Claim 14. Still further, nowhere does *Andrews* disclose that the suction cup is molded into the base as required by Claim 14. *Andrews* merely discloses a

single opening in the appliance which does not separate teeth of a user. In addition, *Andrews* merely discloses a suction device strip attached to the interior walls of the appliance. Therefore, nowhere does *Andrews* disclose the present invention as defined by Claim 14.

Under 35 U.S.C. §102(b), anticipation requires that a single reference discloses each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d. 1241, 1245 (Fed. Cir. 1986). Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial", and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

Since *Andrews* fails to disclose the elements specifically defined in amended independent Claim 14, Applicant asserts that the rejection of Claims 15-17, 19 and 20 under 35 U.S.C. §102(b) has been overcome and should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 6, 42 and 66 under 35 U.S.C. §103(a) as being unpatentable over *Bergersen* in view of *Watson et al.* More specifically, the Patent Office alleges that:

Watson et al. teach the construction of dental appliances of a first relatively rigid material and

a second relatively soft resilient material for aiding in the proper movement of the patient's teeth. Top [sic] have constructed the *Bergersen* orthodontic appliance of hard and soft materials as taught by *Watson et al.* in order to aid in the proper movement of the patient's teeth would have been obvious to one of ordinary skill in the art.

Claims 6, 42 and 66 require that the base is constructed from a first material and a second material wherein the first material is softer than the second material.

On the contrary, *Watson* fails to teach or to suggest the elements of the present invention which are not taught by the '535 patent or *Bergersen*, taken singly or in combination, as required by amended independent Claims 1, 35 and 63 from which Claims 6, 42 and 66, respectively, depend. Accordingly, the rejection of Claims 6, 42 and 66 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 7, 18, 40 and 67 under 35 U.S.C. §103(a) as being unpatentable over *Bergersen* in view of *Andrews*. More specifically, the Patent Office alleges that:

Andrews teaches the use of small suction cups to provide increases adherence and firmly hold the teeth together in the desired position.

Claim 7 requires suction cups formed in the base. Claim 18 requires wedges formed on the base wherein the wedges contact the teeth of the user when the base is worn by the user. Claim 40 requires suction cups extending from the occlusal surface. Claim

67 requires suction cups formed with the base.

On the contrary, *Andrews* fails to teach or to suggest the elements of the present invention which are not taught by *Bergersen*, taken singly or in combination, as required by amended independent Claims 1, 14, 35 and 63 from which Claims 7, 18, 40 and 67, respectively, depend. Accordingly, the rejection of Claims 7, 18, 40 and 67 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

With respect to the rejection of Claims 21-39, 41-43 and 52-57 under 35 U.S.C. §103(a) as being unpatentable over *Bergersen*, the Patent Office alleges that:

In regard to Claims 21-34, merely providing for two different sized mouthpieces in order to treat multiple patients or a single patient multiple times would have been obvious to one of ordinary skill in the art. In regard to Claims 35-37, it would have been obvious to the ordinary skilled artisan to position the wire 104 at the surface of the mouthpiece to better position the user's teeth. Finally in regard to Claims 52-57, it most certainly would have been obvious to the practitioner to explain to the patient the orthodontic procedure being undertaken.

Independent Claim 21, as amended, defines dental appliances adapted to be worn consecutively by a user to treat a malocclusion of teeth of the user. Claim 21 requires that the second device is sized larger than the first device. Further, Claim 21 requires that the second device is shaped to move the teeth from the second position to a third position when the second device is worn by the user.

Independent Claim 27, as amended, defines dental appliances adapted to be worn consecutively by a user to treat a malocclusion. Claim 27 requires that the first device is sized to treat a first type of dentition and the second device is sized to treat a second type of dentition wherein the first type of dentition and the second type of dentition are different. Further, Claim 27 requires that the second device is shaped to move the tooth from the second position to a third position wherein the second position is different from the third position. Still further, Claim 27 requires that the first device and the second device are shaped to correct the malocclusion.

Independent Claim 35, as amended, requires a wire embedded within the base wherein the wire extends from a top surface of the second wall toward the teeth when the base is worn by the user. Further, Claim 35 requires that the wire is shaped to contact a first tooth wherein the first tooth is an incisor type tooth.

Independent Claim 52, as amended, requires providing an analysis means for the patient to analyze a position of one or more teeth within a mouth of the patient. Further, Claim 52 requires that a width of the mouth is measured by the analysis means. Still further, Claim 52 requires displaying a tooth arrangement to which the patient compares the position of the one or more teeth.

Bergersen fails to teach or to suggest dental appliances adapted to be worn consecutively by a user to treat a malocclusion

of teeth of the user as required by Claim 21. Further, *Bergersen* fails to teach or to suggest that the second device is sized larger than the first device as required by Claim 21. Still further, *Bergersen* fails to teach or to suggest that the second device is shaped to move the teeth from the second position to a third position when the second device is worn by the user as required by Claim 21.

Still further, *Bergersen* fails to teach or to suggest dental appliances adapted to be worn consecutively by a user to treat a malocclusion as required by Claim 27. Moreover, *Bergersen* fails to teach or to suggest that the first device is sized to treat a first type of dentition and the second device is sized to treat a second type of dentition wherein the first type of dentition and the second type of dentition are different as required by Claim 27. Furthermore, *Bergersen* fails to teach or to suggest that the second device is shaped to move the tooth from the second position to a third position wherein the second position is different from the third position as required by Claim 27. In addition, *Bergersen* fails to teach or to suggest that the first device and the second device are shaped to correct the malocclusion as required by Claim 27.

Bergersen fails to teach or to suggest a wire embedded within the base wherein the wire extends from a top surface of the second wall toward the teeth when the base is worn by the user as required

by Claim 35. Further, *Bergersen* fails to teach or to suggest that the wire is shaped to contact a first tooth wherein the first tooth is an incisor type tooth as required by Claim 35.

Still further, *Bergersen* fails to teach or to suggest providing an analysis means for the patient to analyze a position of one or more teeth within a mouth of the patient as required by Claim 52. Further, *Bergersen* fails to teach or to suggest a width of the mouth is measured by the analysis means as required by Claim 52. Still further, *Bergersen* fails to teach or to suggest displaying a tooth arrangement to which the patient compares the position of the one or more teeth as required by Claim 52.

Moreover, a person of ordinary skill in the art would never have been motivated to modify *Bergersen* in the manner suggested by the Patent Office in formulating the rejection under 35 U.S.C. §103(a). It is submitted that the question under §103 is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. *In re Simon*, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of the teachings of the references in their entireties, would have been obvious to one of ordinary

skill in the art at the time the invention was made. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

It is insufficient that the art disclosed components of Applicant's invention. A teaching, suggestion, or incentive must exist to make the combination made by Applicant. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1988).

With the analysis of the deficiencies of *Bergersen*, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to modify *Bergersen* to produce the claimed invention. Therefore, *prima facie* obviousness has not been established by the Patent Office as required under 35 U.S.C. §103.

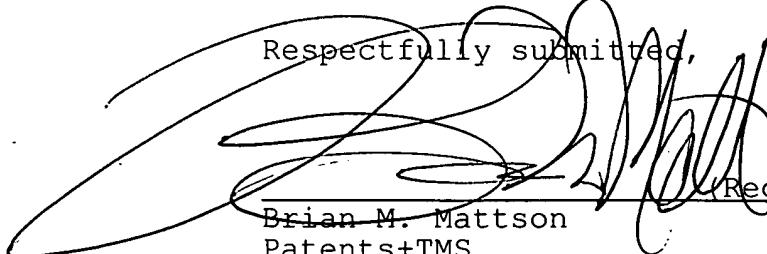
Even assuming that one having ordinary skill in the art could somehow have combined the references applied by the Patent Office, the references still lack the novel features and the novel steps positively recited in independent Claims 21, 27, 35 and 52. Accordingly, Applicant asserts that the rejection of Claims 21-39, 41-43 and 52-57 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

Claims 2-7 depend from Claim 1; Claims 9-13 depend from Claim 8; Claims 15-20 depend from Claim 14; Claims 22-26 depend from Claim 21; Claims 28-34 depend from Claim 27; Claims 36-43 depend from Claim 35; Claims 45-51 depend from Claim 44; Claims 53-57

depend from Claim 52; Claims 59-62 depend from Claim 58; Claims 64-67 depend from Claim 63; Claims 69-73 depend from Claim 68; Claims 75-78 depend from Claim 74; Claims 80-84 depend from Claim 79; and Claims 86 and 87 depend from Claim 85. These claims are further believed allowable over the references of record since each sets forth additional structural elements and novel steps of Applicants' invention.

In view of the foregoing remarks and arguments, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is in condition for allowance. If, however, any outstanding issues remain, Applicant urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant's request the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this **Amendment with Appendix, transmittal (in duplicate) and return receipt postcard** are being deposited with the United States Postal Service as Express Mail in an envelope addressed: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 16, 2006.


Brian M. Mattson (Reg. No. 35,018)